BOOK REVIEW

Noel Simon and Paul Géroudet: Last Survivors. The Natural History of Animals in Danger of Extinction. Illustrations by Helmut Diller and Paul Barruel. New York and Cleveland, World, 1970. \$19.95.

I should like to ascribe the selection of Plate 1 in Last Survivors to the authors' courage, but it must be attributed instead to single-mindedness—an equally laudable if less exciting trait. In this picture the prospective buyer comes immediately upon the spectacle of a long-snouted, pig-eyed, sharp-clawed, naked-tailed, short-furred, ratty-looking little creature that could easily persuade him to return the book to the counter unless he, too, happens to be single-minded about conservation. To many it will be news that such a mammal as the Haitian solenodon even exists. And to most who become so informed it will seem of little consequence, once they see its picture, that this animal faces extinction. Few people indeed can practice the detachment advocated by one of our well-known ornithologists who counseled that love has no place in bird lore but should be displaced by a regard for each species' intrinsic interest and value, vultures in these respects being the equals of warblers. From such a viewpoint the fate of the solenodon should move us as deeply as that of the giant panda. This must be the way Simon and Géroudet feel, for if they were writing only to make money and fame, they would have buried Plate 1 near the back of the book.

Having presented the image of the solenodon, I must give it some substance before talking further about this admirable book. Only two species of solenodon exist, one in Hispaniola and the other in Cuba. They are insectivores, related to certain other primitive shrewlike mammals found in central Africa and in Malagasy (formerly Madagascar). The West Indian species inhabits forests and is threatened primarily by destruction of its habitat as the human population expands. But in addition, a price has been put on living solenodons by zoos which presently have become alerted to the attraction radiated by such curiosities. However, solenodons have never been bred in captivity, and the demands by zoos therefore only hasten a process of extinction that already looks irreversible.

Last Survivors presents accounts of 36 mammalian and 12 avian species that are threatened in various ways throughout the world. These are only examples drawn from a much larger roster that has been published by the International Union for Conservation of Nature and Natural Resources (IUCN) in the Red Data Book-a loose-leaf series with sections devoted to reptiles, amphibians, fish, and flowering plants in addition to mammals and birds. (When a species becomes officially recognized as extinct, its sheet is withdrawn and filed in the Black List.) The IUCN receives its information through a global network of specialist groups, organized as a Survival Service Commission, and it collaborates with the International Council for Bird Protection in monitoring the progress-good or bad-of endangered species. Operational funds, as well as moneys for purchase or maintenance of refuge areas, are solicited by the World Wildlife Fund, of which H.R.H. Bernhard, the Prince of the Netherlands, is president. As Prince Bernhard writes in the preface of this book, "If we look at the economic expansion attained in this century-often at the detriment of nature-the costly voyages into space, the ruinous wars, is it too optimistic to ask for a few tens of millions for conserving nature?"

In the sense that we shall ultimately have to spend many times that sum to preserve ourselves as a part of nature, His Highness's question can be considered as not optimistic enough. But for the time being we can see the basis for his timorous query. The going for all these harried animals is tough, and in view of mankind's self-absorption, it is going to become tougher. Therefore a plea such as the one presented by this book must appear in its most appealing form to have any appreciable impact. And that is what *Last Survivors* is: as attractively caparisoned a treatise on conservation as I have seen.

Though, like our highway engineers who admire the scenic results of their sweeping, calculated grades to the exclusion of what random beauty lay there first, the publishers here have repeated the sin of stitching double-page illustrations into a sturdy binding that irrevocably pinches them in half at midseam. In these sophisticated days of foldouts, why in the world should they have done that? Granted stitching may have been cheaper, the book is not cheap at \$19.95, and purchasers willing to spend that much would probably have gladly shed another dollar or two to obtain a view of their tigers and elephants and whales spread out flat. My Ceylonese elephant looks almost cross-legged where the

crimped pages foreshorten its shoulder region. When you consider that the high cost of the book must be attributed to the illustrations in the first place, one cannot then imagine what sort of economy dictated that a compensatory saving must be made at their expense.

If I next complain that Audouin's gull is shown with a red tip to its bill instead of the vellow one it should have, you may begin to suspect that the illustrations are not so good after all. But now I have done with criticism and, for the rest, I must repeat and insist that Helmut Diller and Paul Barruel, the two artists, have produced a memorable collection of portraits. I recommend especially the plates showing Verreaux's sifaka, the indris, and the ave-ave. Not that these are superior to the others artistically—it is simply that I found them to be revelations; what had formerly been three mere names of lemurs of Malagasy now became three very distinct and fascinating creatures whose nature I had never sensed from poorly drawn and reproduced sketches in older books. But to meet them, only to read that they figure strongly in the Red Data Book-what foul luck! (I had not remembered-or did I ever know it?-that the ave-ave's middle finger is exceedingly thin for use as a probe in extracting larvae from rotten wood. That alone would be worth a trip to Malagasy to see.)

However, this is in no sense a coffee-table picture book, with its text directed only at persons idle—or dull—enough to read it. As variable as its subjects are, so is the crisis of each troubled bird and mammal unique. The book has been divided into sections on America, Europe, Asia, Africa, Oceania, and the Oceans, but that does not sort out the problems into types either, for in each case it seems that a special combination of circumstances has led to the particular difficulty—the animal's requirements are so and so, whereas the terrain is such and such, and man's activities lead to something else again. For example, lions living on the African plains are not in acute jeopardy at present because of the scarcity of human beings, whereas tigers in Asia come into conflict with man because human beings have now occupied the whole area and, hunters aside, people simply feel uncomfortable at having tigers as neighbors. There the problem is ultimately one of excessive hominids, though they see it as too many cats.

Some people may have a tendency to think that we in the United States are almost alone in crying and struggling for conservation. I know that I was guilty of such provincialism. It therefore came as a humbling lesson to learn that Dr. José A. Valverde has been stumping for preservation of marshlands in the delta of the Guadalquivir, on the Atlantic coast of southern Spain, as a sanctuary for the Spanish lynx, Spanish Imperial Eagle, and other endangered species. For one thing, I had never heard of Dr. Valverde; for another, I didn't know that Spain had a southern coast on the Atlantic side of Gibraltar; moreover, I was not aware of marshlands in that region or of the plight of the local fauna. All the better, then, to read that the World Wildlife Fund did know all these things and succeeded in raising money to purchase part of the area, which has now been handed over to the Spanish authorities as a nature reserve with Dr. Valverde as its director.

And so the enlightenment continues, chapter after chapter. In each country, obstacles—native to local culture as well as to physical circumstances—confront would-be conservationists. With us, of course, it is the capitalistic fetish: fertile marshlands are vilified as god-forsaken mosquito-infested mud-holes, to be reclaimed as industrial or residential sites as quickly (and profitably) as possible. But in some places, innocent ignorance controls environmental practices; wasteful farming and grazing methods lead to erosion and the cutting of forests to open new land. Even in remote foreign hinterlands the jeep, the bulldozer, and the pipeline are now accelerating the devastation formerly accomplished by hand.

It would seem that all things modern work against wildlife. Who would have thought that the Caspian tiger would suffer as the result of advances in public health practice? On page 122 we read: "Excessive hunting, both legal and illegal, has undoubtedly been a significant factor in the decline, which has been inadvertently hastened by the postwar malarial control programmes. These have effectively reduced the long-standing menace of malaria around the shores of the Caspian, and the human population has benefited enormously in improved health and vigour; but a less fortunate side-effect has been the steep rise in hunting pressure on the local fauna. At the same time much of the magnificent indigenous forest has been felled." It is believed that only 15 or 20 individuals of this subspecies of tiger are left.

Extinction, as the authors point out on the first page of their introduction, is a natural process that is part of the mechanism of evolution: for progress to occur, the old must make way for the new. But when man exterminates a species, he works against evolution by failing to come up with an improved replacement. Therefore it is correctly in the realm of sanity (and not the monopoly of sentimentalists) to work for endangered species—or at least to oppose man-made changes that would nudge them into oblivion. Such crusading yields the unseen dividend of conserving more than its stated objectives; creatures living with the embattled forms, but not yet themselves eligible for listing in the *Red Data Book*, are the less likely to be headed toward that dubious kind of fame when conservation of the particular becomes a general boon.

You read in these pages of the kakapo, the tamaraw, and the thylacine, and you may suspect that the printer has made a mistake, but these are nevertheless legitimate names of organisms. Unhappily Last Survivors has a generous share of true misprints, well over a dozen of which mar this otherwise beautiful book. On page 190 we have to scratch our heads before realizing that "marking" is supposed to read "mating." And dear old Glover Allen, the late respectable mammalogist, comes out "Gloves" Allen, as if he were a colleague of Mack the Knife.

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